

REMARKS

We refer to the office communication dated 13 October 2005 in respect of the abovementioned patent application.

The Examiner has objected to claims 1 – 3 on the basis that they are anticipated by US5,994,160 issued to Niedermann et al.

The Examiner asserts that “Niedermann teaches a method of making an atomic force microscope (AFM) probe tip. The method comprising etching, through a patterned mask layer, a pyramidal pit or hole into a dope silicon wafer. Niedermann teaches filling the pyramidal cavity with oppositely doped Si and then electrochemically etching away the remaining portion of the doped substrate”.

We disagree with the Examiner’s assertion as to the disclosure of Niedermann. The title of this publication is “Process for manufacturing micromechanical components having a part made of diamond consisting of at least one tip, and micromechanical components comprising at least one diamond tip”. As the title and abstract suggest this specification relates particularly to forming diamond AFM tips. We do not believe it discloses the formation of silicon tips by etching through a patterned mask layer into a doped silicon wafer.

The particular embodiment to which the Examiner refers is illustrated by Figures 3 (A to F) and 5 (A – H). The description of Figure 3 is: “Figs 3A to 3F are diagrams illustrating the steps in the process according to the invention for the manufacture of a component comprising a pyramidal tip and a lever made of silicon”.

And Figure 5: "Figs 5A-5H are diagrams illustrating the successive steps in the process for the manufacture of a component comprising a pyramidal tip made of diamond and a lever made of silicon".

In no instance is a silicon tip disclosed. We agree that a pyramidal cavity is created in one embodiment but, column 7, lines 17-18 "the diamond film 15b (Fig 3D), which forms, with no discontinuity, the tip 3b and the lever 2b, is obtained".

The etching of silicon that is carried out primarily gives rise to the ultimate lever of the AFM tip, not the tip itself.

We therefore ask the examiner to reconsider the objection to the subject application based upon Niedermann.

Respectfully submitted,

Dated:

February 13, 2006

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